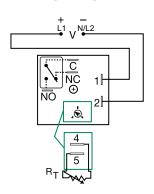
KRDM SERIES





Wiring Diagram



V = Voltage

C = Common, Transfer Contact

NO = Normally Open

NC = Normally Closed

A knob is supplied for adjustable units, or R_T terminals 4 & 5 for external adjust. See external adjustment vs time delay chart. Relay contacts are isolated.

Description

The KRDM Series is a compact time delay relay measuring only 2 in. (50.8 mm) square. Its solid-state timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRDM Series is a cost effective approach for OEM applications that require small size, isolation, reliability, and long life.

Operation (Delay-on-Make)

Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output relay energizes and remains energized until input voltage is removed.

Reset: Removing input voltage resets the time delay and output.

Features & Benefits

FEATURES	BENEFITS			
Microcontroller based	Repeat Accuracy + / - 0.5%			
Compact, low cost design	Allows flexiblility for OEM applications			
Isolated, 10A, SPDT output contacts	Allows control of loads for AC or DC voltages			
Encapsulated	Protects against shock, vibration, and humidity			

Accessories



P1004-95, P1004-95-X Versa-Pot

Panel mountable, industrial potentiometer recommended for remote time delay adjustment.



P1023-6 Mounting bracket

The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



P0700-7 Versa-Knob

Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.

Ordering Information

MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY	MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY
KRDM1110S	12VDC	Fixed	10s	KRDM4110M	120VAC	Fixed	10m
KRDM1130S	12VDC	Fixed	30s	KRDM4110S	120VAC	Fixed	10s
KRDM120	12VDC	Onboard knob	0.1 - 10s	KRDM4145S	120VAC	Fixed	45s
KRDM121	12VDC	Onboard knob	1 - 100s	KRDM420	120VAC	Onboard knob	0.1 - 10s
KRDM2110M	24VAC/DC	Fixed	10m	KRDM421	120VAC	Onboard knob	1 - 100s
KRDM215M	24VAC/DC	Fixed	5m	KRDM424	120VAC	Onboard knob	1 - 100m
KRDM220	24VAC/DC	Onboard knob	0.1 - 10s	KRDM430	120VAC	External	0.1 - 10s
KRDM221	24VAC/DC	Onboard knob	1 - 100s	KRDM433	120VAC	External	0.1 - 10m
KRDM223	24VAC/DC	Onboard knob	0.1 - 10m	KRDM6115M	230VAC	Fixed	15m
KRDM310.2S	24VDC	Fixed	0.2s				

If you don't find the part you need, call us for a custom product 800-843-8848

KRDM SERIES

Accessories



P1015-13 (AWG 10/12), P1015-64 (AWG 14/16) **Female Quick Connect**

These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



P1015-18 Quick Connect to Screw Adapter

Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

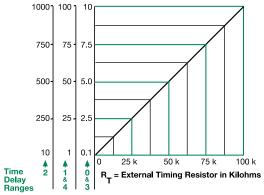


P1023-20 DIN Rail Adapter

Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

External Resistance vs. Time Delay





This chart applies to externally adjustable part numbers.

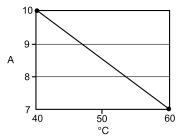
The time delay is adjustable over the time delay range selected by varying the resistance across the RT terminals; as the resistance increases the

time delay increases.

When selecting an external Rr, add the tolerances of the timer and the Rr for the full time range adjustment.

Examples: 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm Rr. For 1 to 100 S use a 100 K ohm Rr.

Output Current/Ambient Temperature



Specifications

Time Delay

Range 0.1s - 100m in 5 adjustable ranges or fixed Repeat Accuracy ±0.5% or 20ms, whichever is greater

Tolerance

Factory Calibration) $\leq \pm 5\%$ **Recycle Time** ≤ 150ms

Time Delay vs Temp.

& Voltage $\leq \pm 5\%$

Input

Voltage 12, 24 or 110VDC; 24, 120 or 230VAC

Tolerance

12VDC & 24VAC/DC -15% - 20% 110VDC 120 & 230VAC -20% - 10% AC Line Frequency/DC Ripple $50/60 \text{ Hz} / \le 10\%$ **Power Consumption** $AC \leq 2VA; \ DC \leq 2W$

Output

Type Isolated relay contacts

Form SPDT

10A resistive @ 125VAC; Rating (at 40°C)

5A resistive @ 230VAC & 28VDC;

1/4 hp @ 125VAC

Max. Switching Voltage 250VAC

Life (Operations) Mechanical - 1 x 107; Electrical - 1 x 105

Protection

Circuitry Encapsulated

≥ 1500V RMS input to output **Isolation Voltage**

Insulation Resistance $\geq 100~M\Omega$

Polarity DC units are reverse polarity protected

Mechanical

Mounting Surface mount with one #10 (M5 x 0.8) screw

H 50.8 mm (2.0"); **W** 50.8 mm (2.0"); **Dimensions**

D 30.7 mm (1.21")

Termination 0.25 in. (6.35 mm) male quick connect terminals

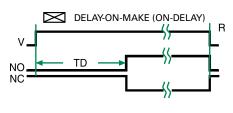
Environmental

Operating/Storage

Temperature -20° to 60°C / -40° to 85°C Humidity 95% relative, non-condensing

Weight ≈ 2.6 oz (74 g)

Function Diagram



V = Voltage

NO = Normally Open Contact

NC = Normally

Closed Contact

TD = Time Delay

R = Reset

- = Undefined Time